

CLAIMS

1 1. A method for facilitating supply chain
2 collaboration in a network environment, said supply chain
3 including an enterprise and at least one supplier, the
4 method comprising:

5 generating and transmitting an unconstrained
6 forecast to said at least one supplier;

7 receiving, from said at least one supplier, a
8 supplier capability statement;

9 generating a constrained forecast using at least one
10 supplier capability statement;

11 transmitting said constrained forecast to said at
12 least one supplier; and

13 receiving, from said at least one supplier, a formal
14 commitment to product a needed supply indicated in said
15 constrained forecast.

1 2. The method of claim 1, wherein said generating
2 said constrained forecast includes:

3 performing a squared set analysis upon said supplier
4 capability statement; and

5 adding capacity constraints during said analysis.

3. The method of claim 1, wherein said generating and transmitting said unconstrained forecast to said at least one supplier includes receiving an aggregated demand from a group associated with said enterprise, said aggregated demand exploded into time-bucketed materials requirements for said group.

4. The method of claim 3 wherein said group includes a division of said enterprise which shares common materials requirements.

5. The method of claim 4 wherein said group is distributed among a plurality of site locations for said enterprise over said network environment.

6. The method of claim 3, wherein said supplier capability statement is transmitted to said group, said group associated with said at least one supplier.

7. The method of claim 3, wherein said supplier capability statement includes a greatest amount of materials said at least one supplier is able to make available to said group.

8. The method of claim 2, wherein said performing said squared set analysis includes feeding said supplier capability statement into a constraint-based optimization tool.

1 9. The method of claim 1, wherein said constrained
2 forecast includes a demand for materials factoring in
3 resource constraints.

1 10. The method of claim 8, wherein a squared set
2 build plan is generated by said constraint-based
3 optimization tool.

1 11. The method of claim 10, wherein said squared
2 set build plan is fed to a materials resource planning
3 engine and requirements for a squared set constrained
4 forecast are generated, said requirements directed to a
5 site location for said enterprise.

1 12. The method of claim 11, wherein said squared
2 set constrained forecast is transmitted to said at least
3 one supplier, said at least one supplier associated with
4 said site location for said enterprise.

1 13. The method of claim 1, wherein said formal
2 commitment includes an agreement by said at least one
3 supplier to provide said needed supply to said
4 enterprise.

1 14. The method of claim 1, further comprising:
2 monitoring inventory levels at a replenishment
3 service center by said at least one supplier based upon
4 said formal commitment;
5 refilling inventory items at said replenishment
6 service center according to said formal commitment;
7 facilitating delivery of said inventory items to
8 a site location for said enterprise by transmitting a
9 pull signal to said replenishment service center; and
10 receiving said inventory items in response to
11 said pull signal.

1 15. The method of claim 14, wherein said monitoring
2 said inventory levels at said replenishment service
3 center includes providing said site location for said
4 enterprise, said at least one supplier, and said
5 replenishment service center a visibility of said
6 inventory materials in transit.

1 16. The method of claim 14, wherein said monitoring
2 said inventory levels by said at least one supplier
3 includes maintaining a minimum supply level.

1 17. The method of claim 16, wherein said minimum
2 supply level is measured in days of supply at said
3 replenishment service center.

1 18. The method of claim 17, wherein said days of
2 supply is calculated by rationalizing current units of
3 inventory against expected consumption.

1 19. The method of claim 18, wherein said expected
2 consumption represents said constrained forecast.

1 20. The method of claim 14, wherein said monitoring
2 said inventory levels is performed by accessing an
3 inventory status provided by said replenishment service
4 center.

1 21. The method of claim 14, wherein said site
2 location for said enterprise monitors said inventory
3 levels.

1 22. The method of claim 14, wherein said refilling
2 said inventory items includes:

3 providing an advance ship notice to said
4 replenishment service center and said site location for
5 said enterprise; and

6 updating a database to indicate when said inventory
7 items are shipped.

1 23. The method of claim 14, wherein said
2 transmitting said pull signal to said replenishment
3 service center includes providing a pull request number
4 to said replenishment service center requesting delivery
5 of said inventory items, wherein a transfer order is
6 generated at said replenishment service center in
7 response to said pull signal.

1 24. The method of claim 23, wherein a goods issued
2 document is created in response to preparing said
3 inventory items for delivery, said goods issued document
4 including said pull request number.

1 25. The method of claim 24, wherein a goods receipt
2 is generated upon delivery of said inventory items, said
3 goods receipt associated with said pull request number.

1 26. A storage medium encoded with machine-readable
2 computer program code for facilitating supply chain
3 collaboration in a network environment, said supply chain
4 including an enterprise and at least one supplier, the
5 storage medium including instructions for causing a
6 computer to implement a method comprising:
7 generating and transmitting an unconstrained
8 forecast to said at least one supplier;
9 receiving, from said at least one supplier, a
10 supplier capability statement;
11 generating a constrained forecast using at least one
12 supplier capability statement;
13 transmitting said constrained forecast to said at
14 least one supplier; and
15 receiving, from said at least one supplier, a formal
16 commitment to product a needed supply indicated in said
17 constrained forecast.

1 27. The storage medium of claim 26, wherein said
2 generating said constrained forecast includes:
3 performing a squared set analysis upon said supplier
4 capability statement; and
5 adding capacity constraints during said analysis.

1 28. The storage medium of claim 26, wherein said
2 generating and transmitting said unconstrained forecast
3 to said at least one supplier includes receiving an
4 aggregated demand from a group associated with said
5 enterprise, said aggregated demand exploded into time-
6 bucketed materials requirements for said group.

1 29. The storage medium of claim 28 wherein said
2 group includes a division of said enterprise which shares
3 common materials requirements.

1 30. The storage medium of claim 29 wherein said
2 group is distributed among a plurality of site locations
3 for said enterprise over said network environment.

1 31. The storage medium of claim 28, wherein said
2 supplier capability statement is transmitted to said
3 group, said group associated with said at least one
4 supplier.

1 32. The storage medium of claim 28, wherein said
2 supplier capability statement includes a greatest amount
3 of materials said at least one supplier is able to make
4 available to said group.

1 33. The storage medium of claim 27, wherein said
2 performing said squared set analysis includes feeding
3 said supplier capability statement into a constraint-
4 based optimization tool.

1 34. The storage medium of claim 26, wherein said
2 constrained forecast includes a demand for materials
3 factoring in resource constraints.

1 35. The storage medium of claim 33, wherein a
2 squared set build plan is generated by said constraint-
3 based optimization tool.

1 36. The storage medium of claim 35, wherein said
2 squared set build plan is fed to a materials resource
3 planning engine and requirements for a squared set
4 constrained forecast are generated, said requirements
5 directed to a site location for said enterprise.

1 37. The storage medium of claim 36, wherein said
2 squared set constrained forecast is transmitted to said
3 at least one supplier, said at least one supplier
4 associated with said site location for said enterprise.

1 38. The storage medium of claim 26, wherein said
2 formal commitment includes an agreement by said at least
3 one supplier to provide said needed supply to said
4 enterprise.

5 39. The storage medium of claim 26, further
6 comprising instructions for causing a computer to
7 implement:

8 monitoring inventory levels at a replenishment
9 service center by said at least one supplier based upon
10 said formal commitment;

11 refilling inventory items at said replenishment
12 service center according to said formal commitment;

13 facilitating delivery of said inventory items to a
14 site location for said enterprise by transmitting a pull
15 signal to said replenishment service center; and

16 receiving said inventory items in response to said
17 pull signal.

1 40. The storage medium of claim 39, wherein said
2 monitoring said inventory levels at said replenishment
3 service center includes providing said site location for
4 said enterprise, said at least one supplier, and said
5 replenishment service center a visibility of said
6 inventory materials in transit.

1 41. The storage medium of claim 39, wherein said
2 monitoring said inventory levels by said at least one
3 supplier includes maintaining a minimum supply level.

1 42. The storage medium of claim 41, wherein said
2 minimum supply level is measured in days of supply at
3 said replenishment service center.

1 43. The storage medium of claim 42, wherein said
2 days of supply is calculated by rationalizing current
3 units of inventory against expected consumption.

1 44. The storage medium of claim 43, wherein said
2 expected consumption represents said constrained
3 forecast.

1 45. The storage medium of claim 39, wherein said
2 monitoring said inventory levels is performed by
3 accessing an inventory status provided by said
4 replenishment service center.

1 46. The storage medium of claim 39, wherein said
2 site location for said enterprise monitors said inventory
3 levels.

1 47. The storage medium of claim 39, wherein said
2 refilling said inventory items includes:
3 providing an advance ship notice to said
4 replenishment service center and said site location for
5 said enterprise; and
6 updating a database to indicate when said inventory
7 items are shipped.

1 48. The storage medium of claim 39, wherein said
2 transmitting said pull signal to said replenishment
3 service center includes providing a pull request number
4 to said replenishment service center requesting delivery
5 of said inventory items, wherein a transfer order is
6 generated at said replenishment service center in
7 response to said pull signal.

1 49. The storage medium of claim 48, wherein a goods
2 issued document is created in response to preparing said
3 inventory items for delivery, said goods issued document
4 including said pull request number.

1 50. The storage medium of claim 49, wherein a goods
2 receipt is generated upon delivery of said inventory
3 items, said goods receipt associated with said pull
4 request number.